

IN THE SPECIFICATION

[0005] In other patents, there has been a general recognition that electrolysis is a method for reducing the organic content of waste streams *per se*. Thus, for example, in Ghosh et al., U.S. Patent No. 4,696,746, the acidogenic effluent from a two-stage anaerobic reactor system is divided into two streams for treatment in separate methanogenic reactors. One of these streams is enriched in molecular hydrogen to promote the generation of methane and to minimize carbon dioxide evolution. Thus, the object of this process is to increase the overall generation of methane by the anaerobic treatment process, and the patentees disclose recycle of biosolids into the reactor system for use of an electrolytic process to facilitate digestion of biosolids generated by the anaerobic stages. Similarly, in Dietrich, U.S. Patent No. ~~5,634,509~~^{5,364,509}, black water and gray water sewage are treated in electrolytic cells. This electrolysis is said to be sufficient to reduce the biological oxygen demand (BOD) and total suspended solids (TSS) of the waste water to levels suitable for surface water discharge. The process disclosed in this patent uses an electrolysis cell as the sole treatment unit and does not discuss integration of electrolysis into a more comprehensive treatment system.

[0007] In other patents, the use of electrolysis to facilitate biodegradation of certain cellulosic materials is also disclosed, such as in Eskamani et al., U.S. Patent No. 4,341,609, and Magnier et al., U.S. Patent No. ~~6,953,573~~^{6,953,573}, which disclose electrolysis used to facilitate biological conversion of plant biomass.